



Educational Product

Educators **Grades 3-5**

EP-2005-06-06-LARC



Register online at
<http://scifiles.larc.nasa.gov>

to receive a FREE PDF of the educator guides and program updates via email.

2005-2006 Season

The NASA SCience Files™ is an annual series of FREE Emmy® award-winning instructional programs for grades 3-5 emphasizing research- and standards-based instruction, Problem-Based Learning, and scientific inquiry. Each program supports the national mathematics, science, and technology standards and has three components that include (1) a 60-minute television broadcast; (2) an educator guide with activities; and (3) an interactive web site featuring a Problem-Based Learning activity that enables students to further explore topics presented in the broadcast.

Use the Power of Technology to Make the NASA Connection*

Now, in addition to the broadcast, educator guide, and web activity, your students can participate in a FREE virtual field trip. This 45-minute, interactive videoconference connects them to the NASA experts featured in each new NASA SCI Files™ program, the latest research, exciting demonstrations, and more. Don't miss this exciting opportunity to bring math, science, and technology to life!

This opportunity is offered as a part of NASA LIVE™. Students must have viewed the NASA SCI Filest™ broadcast prior to participating. To register for an event and additional information, visit <http://live.larc.nasa.gov>.

The Treehouse Detectives



http://scifiles.larc.nasa.gov

Check the back for a list of programs in the 2005-2006 NASA SCI Files™ series.

Free Classroom Mentors

The Society of Women Engineers provides classroom mentors to assist with the hands-on activities and scientific concepts. For more information, visit the NASA SCI Files™ web site or e-mail kimlien.vu@swe.org.

How can I get the television broadcast?

- Programs air on PBS, NASA TV, and many Cable Access Channels. Check your local listings for dates and times.
- The programs are up-linked in KU- and C-band. A schedule and detailed satellite information is available on the NASA SCI Files™ web site.
- Programs can be viewed online. Visit the NASA SCI Files™ web site for details.
- Video copies can be obtained at your local NASA Educator Resource Center. Visit http://education.nasa.gov/about/contacts/Educator_Resource_Center_Network.html to find the location in your state.
- Video copies of the broadcast can be purchased from NASA CORE, <http://core.nasa.gov> or call toll free, 1-866-776-CORE.

See the web site for more details about getting the television broadcast.

<http://scifiles.larc.nasa.gov>

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2005-2006 SEASON

(R) indicates a repeat program from the 2004-2005 SCI Files™ season.



Program 1: The Case of the Great Space Exploration (R)©

Starts airing: Wednesday, September 21, 2005
11:00 a.m.–12 Noon EDT

New discoveries by NASA and a new vision for space exploration create an excitement in the tree house as the detectives set off to learn what it will take to become a space explorer. Join them as they head to Space Camp and NASA to find out if they truly have the “right stuff.”

Mathematics Standards: Numbers and Operations, Measurement, Data Analysis and Probability, Problem Solving, Communication

Science Standards: Science as Inquiry, Physical Science, Life Science, Earth and Space Science, Science and Technology, Science in Personal and Social Perspectives

ITEA Technology Standards: Nature of Technology, Technology and Society, Design, Abilities for a Technological World, The Designed World

Program 2: The Case of the Physical Fitness Challenge©

Starts airing: Wednesday, October 19, 2005
11:00 a.m.–12 Noon EDT

The tree house detectives are eager to win the Presidential Physical Fitness Award, but one of the detectives is not quite up to the challenge. They decide that it is time for a little research to learn more about being fit. They visit NASA to learn more about muscles, bones, and physical activity and why fitness is the key to space exploration.

Mathematics Standards: Numbers and Operations, Measurement, Data Analysis and Probability, Problem Solving, Communication

Science Standards: Science as Inquiry, Life Science, Science and Technology, Science in Personal and Social Perspectives

ITEA Technology Standards: Nature of Technology, Technology and Society, Design, Abilities for a Technological World, The Designed World

Program 3: The Case of the Ocean Odyssey (R)©

Starts airing: Wednesday, November 16, 2005
11:00 a.m.–12 Noon EST

Floating tennis shoes and oil globs wash up on the beach to set the tree house detectives in motion to investigate a unique world under the sea. Join them as they dive into learning about ocean floor topography, currents, ocean zones, and more.

Mathematics Standards: Numbers and Operations, Measurement, Data Analysis and Probability, Problem Solving, Communication

Science Standards: Science as Inquiry, Physical Science, Earth and Space Science, Science and Technology, Science in Personal and Social Perspectives, History and Nature of Science

ITEA Technology Standards: Nature of Technology, Technology and Society, Design, Abilities for a Technological World, The Designed World

Program 4: The Case of the Mysterious Material©

Starts airing: Wed., December 14, 2005, 11:00 a.m.–12 Noon EST

The tree house detectives are baffled when they find an unusual object right beneath their feet. They initiate the NASA SCI Files™ Crime Scene Investigation Team and enlist the help of NASA to help determine the origins of this foreign object. As they get to the heart of the “matter,” they learn that all materials are different and that technology can be a very useful tool.

Mathematics Standards: Numbers and Operations, Measurement, Data Analysis and Probability, Problem Solving, Communication

Science Standards: Science as Inquiry, Physical Science, Earth and Space Science, Science and Technology, Science in Personal and Social Perspectives, History and Nature of Science

ITEA Technology Standards: Nature of Technology, Technology and Society, Design, Abilities for a Technological World, The Designed World

Program 5: The Case of the Wacky Water Cycle (R)©

Starts airing: Wednesday, January 18, 2006
11:00 a.m.–12 Noon EST

The tree house detectives’ efforts to raise money with a car wash dry up when the city is hit with water restrictions. With the help of Problem-Based Learning (PBL), the entire group learns all about the water cycle, the water table, global climates, and much more to get the project flowing again.

Mathematics Standards: Numbers and Operations, Measurement, Data Analysis and Probability, Problem Solving, Communication

Science Standards: Science as Inquiry, Earth and Space Science, Science and Technology, Science in Personal and Social Perspectives

ITEA Technology Standards: Nature of Technology, Technology and Society, Design, Abilities for a Technological World, The Designed World

Program 6: The Case of the Zany Animal Antics (R)©

Starts airing: Wednesday, February 15, 2006
11:00 a.m.–12 Noon EST

Concerned about an injured animal, the tree house detectives decide to learn more about animals and their care. They visit NASA Kennedy Space Center and its nearby Merritt Island National Wildlife Refuge to meet biologists and ecologists to learn about endangered species, the classification and life cycles of animals, migratory patterns, habitats, and much more.

Mathematics Standards: Numbers and Operations, Measurement, Data Analysis and Probability, Problem Solving, Communication

Science Standards: Science as Inquiry, Life Science, Science and Technology

ITEA Technology Standards: Nature of Technology, Technology and Society, Design, Abilities for a Technological World, The Designed World

Program 7: The Case of the Energy Crunch©

Starts airing: Wednesday, March 15, 2006
11:00 a.m.–12 Noon EST

When the tree house detectives experience an electrical brownout, they energize into action to learn about Earth’s energy budget. The detectives learn that all resources are not created equally and that conservation of nonrenewable and renewable energy is very important.

Mathematics Standards: Numbers and Operations, Measurement, Data Analysis and Probability, Problem Solving, Communication

Science Standards: Science as Inquiry, Physical Science, Earth and Space Science, Science and Technology

ITEA Technology Standards: Nature of Technology, Technology and Society, Design, Abilities for a Technological World, The Designed World

Program 8: The Case of the Prize-Winning Plants (R)©

Starts airing: Wednesday, April 19, 2006
11:00 a.m.–12 Noon EDT

The tree house detectives’ green thumbs are tested as they attempt to grow award-winning plants for the upcoming fair. The tree house becomes a green house as the detectives experiment with soil, light, plant life cycles, and genetics to grow the perfect plant.

Mathematics Standards: Numbers and Operations, Measurement, Data Analysis and Probability, Problem Solving, Communication

Science Standards: Science as Inquiry, Physical Science, Life Science, Earth and Space Science, Science and Technology

ITEA Technology Standards: Nature of Technology, Technology and Society, Abilities for a Technological World, The Designed World

Program 9: The Case of the Deafening Sound©

Starts airing: Wednesday May 17, 2006
11:00 a.m.–12 Noon EST

When a friend approaches them to help solve a noisy aircraft problem, the tree house detectives find that NASA is an expert in the sound business. Come join the detectives as they learn how sound travels, how human beings hear, and what NASA is doing to quiet the skies.

Mathematics Standards: Numbers and Operations, Measurement, Data Analysis and Probability, Problem Solving, Communication

Science Standards: Science as Inquiry, Physical Science, Life Science, Science and Technology

ITEA Technology Standards: Nature of Technology, Technology and Society, Abilities for a Technological World, The Designed World